



# South Carolina River News

Fall 1994

State River Issues and Events

Volume 1, Number 2

## River Management

### Sound forestry practices: A key to clean rivers

Stop for a moment and picture your favorite stretch of river. Most likely, the image in your mind's eye included water and a surrounding landscape. Water and land are inexorably linked. However, the relationship between land and water is much stronger than the "beauty in the eye of the beholder." Activities on the land affect water quality in adjacent rivers and streams, oftentimes rendering the waterbodies unsuitable for uses such as swimming, fishing, boating, or even the assimilation of wastewater from a nearby industry.

Since more than 60 percent of South Carolina's total land area is covered with forest, appropriate management of forestland is critical to the quality of the state's 11,100 miles of rivers and streams. Forestry operations such as harvesting, site preparation, planting, and pesticide applications can result in degraded water quality and loss of water uses. Pollutants commonly associated with forestry activities include sediment, pesticides, and petroleum products such as oil and grease. The amount of pollution caused by forestry practices is dependent on the characteristics of the given site: soil type, slope, climatic conditions, practices used, and the care in which the practices are administered. Fortunately, measures have been developed to minimize the impact of forestry practices on adjacent waterbodies — these measures are referred to as best management practices (BMPs).

Most best management practices are common sense guides to protect water resources. (See "A Guide to BMPs," this

issue). The problem is that landowners and timber contractors may not understand the links between forest management, water quality, and the use of water. A 1991 study conducted by the South Carolina Forestry Commission concluded that forestry BMPs were implemented on almost 85 percent of harvesting operations in South Carolina. Timber harvesters did an excellent job complying with log deck and road system BMPs. For example, only four out of 177 sites inspected were rated inadequate for compliance with log deck BMPs. In these cases, log decks were located in streamside management zones or within unstable wet areas. BMP compliance was lowest for road stream crossings (41.7%) and streamside management zones (72.4%). In these cases, landowners failed to identify and adequately protect sensitive sites, especially sites adjacent to perennial and intermittent streams. The most critical management decision that affected compliance was logging during periods of wet soil conditions.

According to Tim Adams of the South Carolina Forestry Commission, emphasis should be placed on education of all landowners stressing the identification and protection of sensitive sites such as riparian land and wetlands. In addition, landowners should be encouraged to include wet weather logging restrictions in timber sale contracts to minimize both on-site and off-site impacts.

South Carolina river corridors provide almost 4,000 river miles suitable for timber use including lengthy stretches along the designated State Scenic Rivers: Broad, Lynches, Little Pee Dee, and Saluda. If we are to achieve the protection goals of the South Carolina Scenic Rivers Act, the Scenic Rivers Program must work closely with landowners and the forestry community to promote best management practices. Management of streamside forests is especially important because these forests remove excess nutrients and sediment from surface runoff, hold the soil in place, shade streams to optimize light and temperature conditions for aquatic life, and provide organic matter to sustain aquatic life. The ultimate result of wise forest management will be clean water for the uses we all enjoy!



## ***Resource Protection***

### **Bottomlands are the promised land for South Carolina wildlife**

Bottomland hardwood forests, perhaps the most productive wildlife habitat in South Carolina, are being targeted for protection by the state Department of Natural Resources' Heritage Trust program.

With the addition of the 2,873 acre Waccamaw River Heritage Preserve in Horry County, Heritage Trust has protect nearly 13,000 acres in bottomland hardwoods in the last six years. Other large bottomland hardwood preserves are located on the Little Pee Dee and Great Pee Dee rivers. The Waccamaw preserve and several other bottomland tracts were acquired with the assistance of The Nature Conservancy of South Carolina.

Studies have shown that, acre for acre, bottomland hardwood forests can support up to five times the wildlife species populations as nearby upland habitats, according to wildlife biologist John Cely. "Bottomland hardwoods help provide wildlife with everything needed to exist – food, cover, and water," said Cely.

Small, seasonally flooded wet areas along streams and rivers provide places for animals to feed and reproduce. In these wet places, small invertebrates occur in great numbers and become food for larger animals which, in turn, become food for even larger animals. When flooded, bottomland hardwood forests also provide spawning sites and feeding areas for fish.

Many bottomland hardwoods are valuable as roosting or den sites. For example, hollow trees in a river bottom may be used by many cavity-nesting birds from wood ducks to screech owls. Some mammals, like squirrels, use standing, hollow trees as den sites. Others, including raccoons, opossums, and otters, use hollow trees after the trees fall. Food and cover produced by bottomland forests are also essential for animals such as white-tailed deer, wild turkey, and black bear.

Bottomland hardwood forests like those at Waccamaw River Heritage Preserve are important breeding areas for

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*See **Bottomlands** continued on page 3*

## ***Editors Note***

We hope this issue of South Carolina River News has helped inform readers on a subject that is often a source of concern - growing trees for pulp and wood production while managing for water quality and the needs of wildlife. Natural resource managers are addressing the objectives of timber management and native species diversity but are sometimes unclear about how to achieve them. Much remains to be done to ensure the protection of the diversity of species that are characteristic of our rich natural heritage. The good news is that the dialogue is taking place. With rigorous, informed discussion we can shed light - and not just heat - on a subject of great consequence for our state's economy and ecology.

We plan to make this newsletter a vehicle for information exchange, therefore, we invite your comments and submissions to South Carolina River News. Please send your correspondence to the editor and include your address and phone number.

**For their contribution to this edition of South Carolina River News we thank Donna Perison, International Paper; Westvaco; and Greg Lucas and Becky Rideout, S.C. Department of Natural Resources.**

### **International Paper recognizes corporate responsibility**

South Carolina's 11,000 miles of rivers offer important ecological, cultural, and economic resources to society. With community interest in river conservation at a peak, International Paper recognizes that it has a key role to play in the protection of coastal river corridor resources as it manages its forest landholdings.

The company's objective is to improve the productive capacity of its forest lands and provide fiber and solid wood products to its Georgetown paper mill and Sampit wood products plant while protecting sensitive natural areas. The guiding principle in managing company lands is multiple use — a policy that allows for the fulfillment of business goals by employing practices that enhance and maintain timber, wildlife, soil, air, and water resources.

The company began development and implementation of internal forestry best management practices (BMPs) in the early 1970s. These internal BMPs have been revised every four to five years to reflect evolving forestry and environmental technology. Today these BMPs are known as International Paper's Forest Environmental Quality Guidelines.

These guidelines provide for the protection of soil productivity, water quality, air quality, aesthetics, and wildlife habitat. For example, as part of its forestry activities, International Paper recognizes streamside management zones; identifies and manages endangered and threatened species habitat; and manages for diversity in age, placement, and configuration of forest stands. To ensure compliance with state BMPs and company guidelines, an annual environmental compliance assessment is conducted on a random sample of harvested sites. The results of this assessment are used to evaluate overall performance and

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*See **Corporate** continued on page 3*

migratory songbirds, Cely said. Migratory songbird populations have declined in recent years, in part due to the destruction and fragmentation of their habitat. Large tracts like the Waccamaw preserve will be especially important to songbirds in years to come as the unprotected land around them is converted to other uses such as commercial or residential development.

Heritage Trust's bottomland hardwood protection efforts have increased in recent years due to the rapid disappearance of the important habitat. With hardwoods fetching high prices, the timbering of bottomlands along river corridors has accelerated. Indeed, a Heritage Trust study found that one-fourth of the bottomland forests along the Santee River drainage were clear-cut between 1979 and 1989.

### *Corporate continued from page 2*

identify shortfalls that need corrective actions.

International Paper is also involved in the sale or trade of critical habitat along river corridors to conservation groups to protect unique areas. But perhaps the most exciting program in the company, is the recent development of environmental partnerships with conservation organizations on lands that have timber management potential and that are also of public interest and ecological importance. This approach is becoming an effective means of achieving economic objectives while addressing important environmental concerns.



## **South Carolina River News**

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## ***Saving Land for Wildlife***



*While increased timber harvesting has impacted many bottomlands in South Carolina, this Westvaco tract has been harvested with wildlife habitat needs in mind. Wildlife travel lanes (center) and streamside buffer strips (right and top) interspersed with recent harvest areas offer cover for some wildlife while helping to protect water quality. Planned harvesting by foresters and wildlife biologists can help maintain healthy forests.*

## ***Community Interest***

# **WANTED: "Watershed Eyes"**

While paddling a river, driving through your community, or taking your daily walk, you may notice activities or land uses which are negatively affecting a stream, river, or lake. The "culprit" might be a clear-cut tract with no streamside buffer strip, a severely eroded construction site, or even a neighbor dumping used motor oil down a storm drain — just to name a few of the many possibilities. You can be the eyes of the watershed by reporting such activities to your local Department of Health and Environmental Control district office.

***"Our system is built on response to citizen complaints."***

According to Mary Ann Rosochacki, DHEC's Nonpoint Source Pollution (NPS) District Advisor, "It is very important for citizens to let us know about potential water pollution problems in their communities. Our system is built on response to citizen complaints. So, without their input we may not be aware of a situation."

Next time you are out and about, keep your eyes peeled!

Notice what is happening on the land, and think about how the land use might affect water quality. If you see a problem, report it — your river's health depends on it!



## River Currents

Several land transactions in critical river corridors have occurred in South Carolina in recent months. These transactions will help ensure the protection of habitats important for rare or sensitive plant and animal species in our state. **SCE&G** announced on Earth Day that it gave **Congaree Land Trust** a conservation easement on nearly 400 acres of wetlands along the South Fork of the Edisto River near Cope, S.C. As a result, these valuable bottomland hardwood forests will be preserved for generations to come. **International Paper** recently sold 2,873 acres of its holdings to the **Nature Conservancy** which, in turn, sold the tract to the state's **Heritage Trust** (see article, this issue). The property – the **Waccamaw River Heritage Preserve** – is located on the Waccamaw River in Horry County. A canoe trail, which winds its way through the preserve, offers nature lovers an opportunity to explore the depths of this wonderland up-close. For information on the Waccamaw River canoe trail, write the Heritage Trust at P.O. Box 167, Columbia, S.C., 29202, or call at (803) 734-3893.

Some of South Carolina's most pristine forested wetlands have been the focus of national attention in recent

months. **Secretary of the Interior, Bruce Babbitt** was recently in the **ACE Basin** to announce a new study initiative, aimed at determining what makes a forested wetland "tick." Such information as water uptake rates, nutrient requirements, and vegetation regeneration rates will be used by scientists to restore wetlands that have been degraded. Pristine systems such as areas in the ACE could serve as study sites to determine baseline conditions for these factors. Other candidate sites for the program include . . . The program will be led by the National Biological Survey. The Nature Conservancy, Ducks Unlimited, U.S. Fish and Wildlife, Army Corps of Engineers, U.S. Forest Service, the timber industry, and S.C. Department of Natural Resources will assist in the study.

A recent ruling by the **EPA** could affect the way **timber industries** do business in South Carolina. Under the Clean Water Act, timber companies have been allowed certain regulatory exemptions as part of "normal" silviculture practices. As a result of the EPA's redefinition of "normal" silviculture, timber companies can no longer clear and drain wetlands to plant pine trees – an activity responsible for the conversion of millions of acres of wetlands in the Southeast.

Residents of the **Edisto River Basin** continue to contemplate the future of this region of the state. The question on their minds is how to have appropriate economic development while protecting the environment and its contributions – fishing, boating, serenity – to everyday life. To accomplish this, a series of meetings have been scheduled to discuss such topics as agriculture, water quality, water use, forestry, wildlife management, tourism, and cultural resource protection. Other topics slated for discussion include community development, wetlands protection, and land conservation. The public is welcome and encouraged to participate. The project is sponsored by the Water Resources Division of the Department of Natural Resources.

**American Rivers Month** was a huge success this year, celebrated by over 30 events planned by 20 sponsors. Thanks again to all who participated! School kids, civic groups, and water lovers from all walks of life are gearing up for the fifth annual **Beach Sweep River Sweep**. On September 17th, hundreds of volunteers will head out to South Carolina's waterways and beaches to cleanup a year's worth of litter. It is expected that some 80 tons of trash will be collected. For details on how you can participate, contact Becky Rideout at the Department of Natural Resources, Water Resources Division.

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